



MYSQL

Business Questions & Answer

On

Hospitals Management DataSet

By

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#Count the number of hospitals by facility type.

```
SELECT
    type, COUNT(*) AS Hospital_counts
FROM
    facility
GROUP BY Type;
```

Result Grid			Filter Rows:
	type	Hospital_counts	
▶	Government	1064	
	Church	328	
	Private	2078	
	Proprietary	796	
	Unknown	506	

Find the hospitals with the highest overall rating (5 stars) in each state.

```
SELECT
    f.Name, f.State, r.Overall AS highest_rating
FROM
    facility f
    JOIN
        rating r ON f.Facility_ID = r.Facility_ID
WHERE
    r.Overall = 5
GROUP BY f.Name , f.State;
```

Result Grid			Filter Rows:	Export:	Wrap Cell Content:
	Name	State	highest_rating		
▶	Sitka Community Hospital	AK	5		
	Eliza Coffee Memorial Hospital	AL	5		
	Andalusia Health	AL	5		
	Banner - University Medical Center Tucson Cam...	AZ	5		
	Washington Regional Medical Center	AR	5		
	Drew Memorial Hospital	AR	5		

Result 4 x

Output

Action Output

#	Time	Action	Message
1	12:54:09	SELECT f.Name, f.State, r.Overall AS highest_rating FROM facility f	205 row(s) returned

List hospitals where the mortality rating is below the national average.

```
SELECT
```



```

f.Name,f.City, f.State,r.Mortality as Mortality_Rating
FROM
  facility f
  JOIN
    rating r ON f.Facility_ID = r.Facility_ID
WHERE
  r.Mortality = 1;

```

Result Grid				
Filter Rows:				
Export: Wrap Cell Content: TA				
	Name	City	State	Mortality_Rating
▶	Providence Seward Hospital	Seward	AK	1
	Marshall Medical Center South	Boaz	AL	1
	Petersburg Medical Center	Petersburg	AK	1
	Wrangell Medical Center	Wrangell	AK	1
	Ketchikan Medical Center	Ketchikan	AK	1
	Yavapai Regional Medical Center	Prescott	AZ	1

Result 8 x

Output

Action Output

#	Time	Action	Message
1	12:55:23	SELECT f.Name,f.City, f.State,r.Mortality as Mortality_Rating FROM faci...	336 row(s) returned

Compare the average overall rating between government and private hospitals

```

SELECT
  f.Type, AVG(r.overall) AS Avg_Ovr_Rating
FROM
  facility f
  JOIN
    rating r ON f.Facility_ID = r.Facility_ID
WHERE
  f.Type IN ('Private', 'Government')
GROUP BY f.Type;

```

Result Grid		
Filter Rows:		
	Type	Avg_Ovr_Rating
▶	Government	3.0267
	Private	2.9247

Find the hospitals with the highest average cost for each procedure (Heart Attack, Heart Failure, Pneumonia, Hip/Knee).

#-----Heart Attack-----#

```

SELECT
  f.Name, p.Heart_Attack_Cost

```

```

FROM
  facility f
  JOIN
    procedures p ON f.Facility_ID = p.Facility_ID
ORDER BY p.Heart_Attack_Cost DESC
LIMIT 10;

```

Result Grid		Filter Rows:	Export:
Name	Heart_Attack_Cost		
Mt Ascutney Hospital	29670		
Kaiser Foundation Hospital - Oakland/richmond	29606		
University Hospital At Stony Brook	29530		
Texas Health Presbyterian Hospital Rockwall	29501		
Cozad Community Hospital	29353		
Northwest Texas Hospital	29320		

#-----**Heart Failure**-----#

```

SELECT
  f.Name, p.Heart_Failure_Cost
FROM
  facility f
  JOIN
    procedures p ON f.Facility_ID = p.Facility_ID
ORDER BY p.Heart_Failure_Cost DESC
LIMIT 10;

```

Result Grid		Filter Rows:	Export:
Name	Heart_Failure_Cost		
Corpus Christi Medical Center, the	22265		
Medina Memorial Hospital	21894		
Indianhead Medical Center Shell Lake	21621		
Mahnomen Health Center	21324		
Mountain View Regional Medical Center	21166		
Au Medical Center	21129		

#-----**Pneumonia**-----#

```

SELECT
  f.Name, p.Pneumonia_Cost
FROM
  facility f
  JOIN
    procedures p ON f.Facility_ID = p.Facility_ID
ORDER BY p.Pneumonia_Cost DESC

```


LIMIT 10;

Result Grid			Filter Rows:	Export:
	Name	Pneumonia_Cost		
▶	Baylor Scott And White Medical Center Lake Poi...	24855		
	Seneca District Hospital	24200		
	Baylor Medical Center At Frisco	23983		
	Jupiter Medical Center	23778		
	Indianhead Medical Center Shell Lake	23258		
	Palm Bay Hospital	23252		

#-----**Hip/Knee**-----#

SELECT

f.Name, p.Hip_Knee_Cost

FROM

facility f

JOIN

procedures p ON f.Facility_ID = p.Facility_ID

ORDER BY p.Hip_Knee_Cost DESC

LIMIT 10;

Result Grid			Filter Rows:	Export:
	Name	Hip_Knee_Cost		
▶	Centerpoint Medical Center	34771		
	Baylor Scott And White Medical Center Lake Poi...	34236		
	Iron County Medical Center	33647		
	Neshoba County General Hospital	32643		
	Sugar Land Surgical Hospital Llp	32418		
	Gallup Indian Medical Center	30736		
	Christus St Vincent Regional Medical Center	30525		
	Pipestone County Medical Center	30122		
	Mercy Hospital Of Buffalo	29983		
	Putnam Hospital Center	29863		

#List hospitals that offer the value (Lower cost) for heart attack procedures.

SELECT

f.Name, p.Heart_Attack_Cost, p.Heart_Attack_Value

FROM

facility f

JOIN

procedures p ON f.Facility_ID = p.Facility_ID

WHERE

p.Heart_Attack_Value = 'Lower'

ORDER BY p.Heart_Attack_Cost ASC;

Result Grid			
Filter Rows:		Export:	Wrap Cell Content:
Name	Heart_Attack_Cost	Heart_Attack_Value	
Brooks County Hospital	18996	Lower	
Moberly Regional Medical Center	19128	Lower	
Seton Edgar B Davis Hospital	19583	Lower	
University Of Maryland Medical Center	19627	Lower	
Russell County Hospital	19680	Lower	
Pointe Coupee General Hospital	19872	Lower	
Helen Hayes Hospital	19947	Lower	
Sanford	19991	Lower	
Muleshoe Area Medical Center	20088	Lower	

Result 15 x

Output

Action Output

#	Time	Action	Message
1	12:58:51	SELECT f.Name, p.Heart_Attack_Cost, p.Heart_Attack_Value FROM f...	180 row(s) returned

#List hospitals that offer the value (Lower cost) for Pneumonia_Cost procedures.

```

SELECT
f.Name, p.Pneumonia_Cost, p.Pneumonia_Value
FROM
facility f
JOIN
procedures p ON f.Facility_ID = p.Facility_ID
WHERE
p.Pneumonia_Value = 'Lower'
ORDER BY p.Pneumonia_Value ASC;

```

Result Grid			
Filter Rows:		Export:	Wrap Cell Content:
Name	Pneumonia_Cost	Pneumonia_Value	
Sitka Community Hospital	15614	Lower	
Verde Valley Medical Center	16309	Lower	
University Of Alabama Hospital	16213	Lower	
Cullman Regional Medical Center	14136	Lower	
John C. Lincoln North Mountain Hospital	13248	Lower	
St. Joseph's Hospital And Medical Center	14328	Lower	
Banner Boswell Medical Center	14902	Lower	
Abrazo Arrowhead Campus	15260	Lower	
Wiregrass Medical Center	16006	Lower	

Result 17 x

Output

Action Output

#	Time	Action	Message
1	12:59:34	SELECT f.Name, p.Pneumonia_Cost, p.Pneumonia_Value FROM facilit...	336 row(s) returned

#List hospitals that offer the value (Lower cost) for Hip_Knee_Cost procedures.

```
SELECT
  f.Name, p.Hip_Knee_Cost, p.Hip_Knee_Value
FROM
  facility f
  JOIN
    procedures p ON f.Facility_ID = p.Facility_ID
WHERE
  p.Hip_Knee_Value = 'Lower'
ORDER BY p.Hip_Knee_Cost ASC;
```

Result Grid

Filter Rows:

Export:

Wrap Cell Content:

	Name	Hip_Knee_Cost	Hip_Knee_Value
▶	Cleveland Clinic Hospital	15517	Lower
	Faulkton Area Medical Center	16009	Lower
	Chi St Lukes Health Memorial Lufkin	16683	Lower
	Arkansas Heart Hospital, Llc	16738	Lower
	Kaiser Foundation Hospital - Baldwin Park	16779	Lower
	Siloam Springs Regional Hospital	16785	Lower
	Banner Boswell Medical Center	16861	Lower
	Glendale Mem Hospital & Hlth Center	16902	Lower
	Kinns Daughters Medical Center Ohio	16921	Lower

Result 19

×

Output

Action Output

#	Time	Action	Message
✓ 1	13:00:15	SELECT f.Name, p.Hip_Knee_Cost, p.Hip_Knee_Value FROM facility f ...	761 row(s) returned

#Compare hospitals' safety ratings across different states.

```
SELECT
  f.State,
  COUNT(CASE
    WHEN r.Safety = 3 THEN 1
  END) AS Above_safety,
  COUNT(CASE
    WHEN r.Safety = 1 THEN 1
  END) AS Below_safety
FROM
  facility f
  JOIN
    rating r ON f.Facility_ID = r.Facility_ID
GROUP BY f.State;
```

Result Grid				Filter Rows:
	State	Above_safety	Below_safety	
▶	AK	7	7	
	AL	22	21	
	AZ	20	9	
	AR	15	12	
	CA	88	90	
	CO	19	16	
	CT	7	2	
	DE	0	0	

#Compare the effectiveness of care ratings between different hospital types.

```

SELECT
    f.Type,
    COUNT(CASE
        WHEN r.Effectiveness = 3 THEN 1
    END) AS Above_Effect,
    COUNT(CASE
        WHEN r.Effectiveness = 1 THEN 1
    END) AS Below_Effect
FROM
    facility f
    JOIN
        rating r ON f.Facility_ID = r.Facility_ID
GROUP BY f.Type;

```

Result Grid				Filter Rows:
	Type	Above_Effect	Below_Effect	
▶	Government	33	35	
	Church	12	10	
	Private	60	94	
	Proprietary	18	34	
	Unknown	22	18	

Identify hospitals where readmission rates are below the national average.

```

SELECT
    f.Name, f.City, f.State, r.Readmission
FROM
    facility f
    JOIN
        rating r ON f.Facility_ID = r.Facility_ID

```


WHERE

r.Readmission = 1;

Result Grid	Filter Rows:	Export:	Wrap Cel
Name	City	State	Readmission
► Providence Seward Hospital	Seward	AK	1
Ketchikan Medical Center	Ketchikan	AK	1
Mt Edgecumbe Hospital	Sitka	AK	1
Callahan Eye Hospital	Birmingham	AL	1
Jackson Hospital & Clinic Inc	Montgomery	AL	1
Community Hospital Inc	Tallassee	AL	1
St Luke's Medical Center	Phoenix	AZ	1
Kingman Regional Medical Center	Kingman	AZ	1
Lake Martin Community Hospital	Dadeville	AL	1

#Find hospitals where the patient experience is rated above national averages.

SELECT

f.Name, f.City, f.State, r.Experience AS Experience_rating

FROM

facility f

JOIN

rating r ON f.Facility_ID = r.Facility_ID

WHERE

Experience = 3;

Result Grid	Filter Rows:	Export:	Wrap Cell Content: IA
Name	City	State	Experience_rating
► Andalusia Health	Andalusia	AL	3
Banner - University Medical Center Tucson Cam...	Tucson	AZ	3
Banner Desert Medical Center	Mesa	AZ	3
Banner-university Medical Center South Campus	Tucson	AZ	3
Oro Valley Hospital	Oro Valley	AZ	3
Providence Hospital	Mobile	AL	3
Grove Hill Memorial Hospital	Grove Hill	AL	3
D C H Regional Medical Center	Tuscaloosa	AL	3
Banner Gateway Medical Center	Gilbert	AZ	3

#List hospitals where timeliness of care is rated as above national average.

SELECT

f.Name, f.City, f.State, r.Timeliness AS Timeliness_rating

FROM

facility f

JOIN

rating r ON f.Facility_ID = r.Facility_ID

WHERE

Timeliness = 3;

Result Grid	Filter Rows:	Export:	Wrap Cell Content:
Name	City	State	Timeliness_rating
► Providence Seward Hospital	Seward	AK	3
Dekalb Regional Medical Center	Fort Payne	AL	3
Jackson Hospital & Clinic Inc	Montgomery	AL	3
Banner - University Medical Center Tucson Cam...	Tucson	AZ	3
Lake Martin Community Hospital	Dadeville	AL	3
Banner Thunderbird Medical Center	Glendale	AZ	3
St Vincent's Birmingham	Birmingham	AL	3
Banner Del E. Webb Medical Center	Sun City West	AZ	3
Northeast Alabama Regional Medical Center	Anniston	AL	3

#Identify hospitals with the most effective use of imaging (rated above the national average).

SELECT

f.Name, f.City, f.State, r.Imaging AS Imaging_rating

FROM

facility f

JOIN

rating r ON f.Facility_ID = r.Facility_ID

WHERE

Imaging = 3;

Result Grid	Filter Rows:	Export:	Wrap Cell Content:
Name	City	State	Imaging_rating
► Southeast Alabama Medical Center	Dothan	AL	3
Petersburg Medical Center	Petersburg	AK	3
Eliza Coffee Memorial Hospital	Florence	AL	3
St Vincent's East	Birmingham	AL	3
Dekalb Regional Medical Center	Fort Payne	AL	3
Samuel Simmonds Memorial Hospital	Barrow	AK	3
Mt Edgecumbe Hospital	Sitka	AK	3
Callahan Eye Hospital	Birmingham	AL	3
Jackson Hospital & Clinic Inc	Montgomery	AL	3

#Compare the cost and quality of care for heart failure across hospitals.

SELECT

f.Name, p.Heart_Failure_Cost, p.Heart_Failure_Quality

FROM

facility f

JOIN

procedures p ON f.Facility_ID = p.Facility_ID

WHERE

p.Heart_Failure_Quality = 'Average'
ORDER BY p.Heart_Failure_Cost ASC;

Result Grid				Filter Rows:	Export:	Wrap Cell Content:
	Name	Heart_Failure_Cost	Heart_Failure_Quality			
▶	Seton Edgar B Davis Hospital	11716	Average			
	Kings Daughters Medical Center Ohio	12947	Average			
	Maimonides Medical Center	13054	Average			
	Scripps Memorial Hospital - Encinitas	13122	Average			
	St. Joseph's Hospital And Medical Center	13287	Average			
	Glens Falls Hospital	13374	Average			
	University Hospital Of Brooklyn (Downstate)	13391	Average			
	Muleshoe Area Medical Center	13420	Average			
	John C. Lincoln North Mountain Hospital	13788	Average			

#Hospitals with Value (Lower) & Cost for Pneumonia Treatment

SELECT
f.Name, p.Pneumonia_Cost, p.Pneumonia_Value
FROM
facility f
JOIN
procedures p ON f.Facility_ID = p.Facility_ID
WHERE
p.Pneumonia_Value = 'Lower'
ORDER BY p.Pneumonia_Cost ASC;

Result Grid				Filter Rows:	Export:	Wrap Cell Cont
	Name	Pneumonia_Cost	Pneumonia_Value			
▶	Muleshoe Area Medical Center	13038	Lower			
	Seton Edgar B Davis Hospital	13192	Lower			
	John C. Lincoln North Mountain Hospital	13248	Lower			
	Martha's Vineyard Hospital Inc	13812	Lower			
	Jones Memorial Hospital	14008	Lower			
	St Marks Medical Center	14008	Lower			
	Maria Parham Medical Center	14025	Lower			
	Rockefeller University Hospital	14032	Lower			
	Maimonides Medical Center	14060	Lower			

#Find hospitals with the best value for hip/knee procedures based on cost and quality.

```

SELECT
    f.Name,
    p.Hip_Knee_Cost,
    p.Hip_Knee_Quality,
    p.Hip_Knee_Value
FROM
    facility f
    JOIN
        procedures p ON f.Facility_ID = p.Facility_ID
WHERE
    p.Hip_Knee_Value = 'Lower'
ORDER BY p.Hip_Knee_Cost ASC;

```

Result Grid Filter Rows: Export: Wrap Cell Content:				
	Name	Hip_Knee_Cost	Hip_Knee_Quality	Hip_Knee_Value
▶	Cleveland Clinic Hospital	15517	Average	Lower
	Faulton Area Medical Center	16009	Average	Lower
	Chi St Lukes Health Memorial Lufkin	16683	Average	Lower
	Arkansas Heart Hospital, Llc	16738	Better	Lower
	Kaiser Foundation Hospital - Baldwin Park	16779	Average	Lower
	Siloam Springs Regional Hospital	16785	Average	Lower
	Banner Boswell Medical Center	16861	Average	Lower
	Glendale Mem Hospital & Hlth Center	16902	Average	Lower
	Kinns Daughters Medical Center Ohio	16921	Average	Lower

#Top 5 Hospitals with Best Overall Ratings in Each State

```

SELECT
    f.Name, f.State, r.Overall
FROM
    facility f
    JOIN
        rating r ON f.Facility_ID = r.Facility_ID
WHERE
    r.Overall = 5
ORDER BY f.State , r.Overall LIMIT 5;

```

Result Grid Filter Rows: Export:			
	Name	State	Overall
▶	Sitka Community Hospital	AK	5
	Eliza Coffee Memorial Hospital	AL	5
	Andalusia Health	AL	5
	Washington Regional Medical Center	AR	5
	Drew Memorial Hospital	AR	5

#Analyze the relationship between heart attack cost and mortality rating.

SELECT

f.Name, p.Heart_Attack_Cost, r.Mortality AS Mortality_Rating

FROM

facility f

JOIN

procedures p ON f.Facility_ID = p.Facility_ID

JOIN

rating r ON p.Facility_ID = r.Facility_ID

WHERE

r.Mortality IN ('3', '1')

ORDER BY p.Heart_Attack_Cost DESC;

Result Grid			
Filter Rows:		Export:	Wrap Cell Cont
Name	Heart_Attack_Cost	Mortality_Rating	
San Geronio Memorial Hospital	28535	3	
Lea Regional Medical Center	28158	1	
Penn Medicine Princeton Medical Center	28066	3	
Northridge Hospital Medical Center	27929	3	
Baylor Surgical Hospital At Fort Worth	27906	1	
Sullivan County Memorial Hospital	27764	1	
Mount Carmel St Ann's	27141	1	
Hancock Regional Hospital	26819	1	
Hale Heale Hospital	26712	1	